

**Common Terms in Motion:**

**Inertia:** reluctance of a body to change what it is doing (either rest or motion)  
ie. a barbell lying on the floor or a baseball flying through the air (stick you hand out to catch it!!!!)  
Inertia is directly related to the mass of the object against gravity

**Force:** is the action which causes change to a body. A body at rest can be made to move when another force is applied to it. ( ie. pushing or pulling)

**Speed:** is a relationship between distance and the time it takes to cover it  
distance/time

**Velocity:** is the vector quality of speed (displacement/time)

Nov 30-6:08 AM

**Acceleration:** is the relationship between the change in velocity in a period of time

$$V_{\text{final}} - V_{\text{initial}} / \text{time}$$

Positive Acceleration = speeding up

Negative acceleration = slowing down (deceleration)

**Momentum:** describes the relationship between mass and velocity. It is the product of these two factors which determines the objects momentum.

**Friction:** describes the force which opposes the motion or impending motion. Usually caused by air, water or various surfaces.

Nov 30-6:22 AM

Dec 1-6:34 AM